Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Plants agreeing well with the var. *obtusilobata* were found growing near this one, and from the same rootstock of the common species.—CLAUDE CRITTENDEN, *Rochester*, *N. Y.*

ZOÖLOGY.

THE BUTCHER BIRD AND MOTTLED OWL.—In Volume II, No. 7, page 380, the question is asked by Dr. Wood, if the *Collyrio borealis* has been known to return to animals which it has killed and empaled, or hung upon trees. Only one instance has come under my notice, and that was some years since, in the latter part of November. A Butcher bird returned to a pear tree upon which grasshoppers had been empaled and devoured them, though they had remained there some weeks and had become dry. I should like to ask any person who is acquainted with the habits of the Shrike if they kill and empale animals at all seasons of the year, or only two or three months preceding winter.

There is something singular with regard to the vision of the Mottled Owl, which the Doctor notices in an article on the Mottled Owl, in the same volume and number, on page 373. I was once in search of the nest of this owl, and in passing under an apple tree, I saw what seemed to be a part of a bird protruding from a limb of the tree, and in climbing up to the spot, I found a male Mottled Owl, with his head and shoulders thrust into a small cavity in the limb. I took him out and perched him upon my finger, where he stood for some minutes. I put my hand upon his back and smoothed down his feathers, when he would turn his head and look me full in the face and snap his bill. I stretched out his wings and handled him other ways. At last he flew in a direct line for an apple tree, standing about eight rods distant, and entered a hole in a rotten branch of the tree as readily as if it had been in the night-time. This occurred when the sun was shining brightly, at about noon.—AUGUSTUS FOWLER, *Danvers*, *Mass.*

SHEDDING OF THE HORNS OF THE AMERICAN ANTELOPE (*Antilocapra Americana**).—My experience in regard to the shedding of antelope's horns is this: I have killed bucks and does in October and November, and the first of December, and after the heads have become dry, the horns slip from the pith, which appeared to extend to a little above the prong; but the prong was only noticed as extending upwards, and not beyond a line extending downwards towards the but of the horn; and in spring I have found on bucks and does a soft hairy horn within an inch or two of the point which would become hard. Does' horns are about one-half or a third of the length of those of the bucks.

I owned a buck which I got when about four months old, and in March he had horns about one and a half inches long, a little before he was a year old, and shed about three quarters of an inch, and as I kept him well, and castrated him in August (to keep him from leaving), he shed about two inches or more. They shed their horns about the first of January. They are very easily tamed so as to stand touching by one, but dislike to be rubbed on the back, their hair being so very brittle. They are fond of milk, bread, corn, etc., at any age. Unless they do without milk for a while when about a year old, they will not drink it. They also like a little salt at a time, sugar, candy, etc. I never found but one antelope horn shed on the plains, or heard of any being found (I have made many enquiries about it), and the one I found was partly eaten up by the wolves.—W. M. HINMAN, *Fort Laramie.*

---

* Communicated in a letter received by the Smithsonian Institution, Washington, D. C.

THE WOODPECKER AND SHELDRAKE.—The Downy Woodpecker frequently spreads it wings against the bark to maintain its hold; the stiff quills performing the same office as the tail. It goes up the tree, along the horizontal branches, around the limb sidewise, then a short distance down the trunk, tail first, and lodges itself in the crotches to hammer. It strikes many deft little side blows, ceases work and clings some time as if to rest, with loose plumage, picking its breast and looking about.

Last spring when the Dusky Ducks were migrating, I noticed one morning a large flock separating, in the course of their flight, into distinct pairs. Soon uniting again, it is probable they were seeking their partners if not already mated.

As soon as, or even before the river has begun to open in spring, the Sheldrakes make their appearance, early in the morning, but seldom before sunrise; they fly from the sea, where they probably roost, up the stream. Sometimes they file along one after the other; more often they proceed in no regular order. When they are bound a long distance up stream, they fly high with regular beats, with necks outstretched, and the neutral light which is on them would seem to suggest the flock between dusk and the daylight. On their return down stream, often in pairs or singly, or small parties, they fly close to the surface of the ice or water, and very swiftly. When anything alarms them on the bank, they sometimes croak. If attracted, they turn at a distance, retrace their flight, scale low over the water, throw out their webbed feet and stop with a splash. They look handsomely, their necks deeply curved, the male with such strong contrasts of black and white. They croak and dive with vigor, returning to the surface in a moment. They arise from the water easily, and are soon under good headway. I have never heard any noise from their wings be their flight ever so rapid. I have seen the male on alighting, thrust his bill straight into the air, shake his head, croak and swim away. This may be a token of suspicion, but it is also performed when there is no particular cause for alarm. The croaking noise sounds something like a duck's quack, and evidently expresses a good deal, as I am persuaded from observation on various occasions. One morning, after a cold night, the river was covered with thin ice. Three Sheldrakes came up, flying low, their heads were bent down as if to look closely; making a circuit and scaling close to the ice, they rose again, an old male croaking, saying plainly to my ears, "we can't get in here." They swim about strongly, almost as if drawn by some powerful electrical attraction, and on coming to the surface after a dive, the head and neck are often thrown back in a very haughty manner. The very soundness of the season and the frozen shore seems in them; but perhaps their amative prospects may have something to do with this exuberance of spirits. It seems as if they could never die. Wounded birds frequently crawl upon the ice, but they do not seem to walk very well. Flocks will alight on the ice before going into the water sometimes, and it is not unusual for a pair to be seen sitting on the ice by a hole where frost-fish are taken. I have seen the Sheldrake standing on a ledge; its figure was awkward, but it did not stand as erect as some other birds whose legs are placed far behind. A little flock is sometimes seen in spring resting in a cove or inlet of the sea; some quite at their ease, others swimming about in that strong way we have alluded to, with necks outstretched.

The Sheldrakes seen on the breaking up of the rivers are as nothing compared to the quantity that follow along the shore a little later, when they come in flocks, from twelve to twenty, and even seventy-five; sometimes flying steadily, two or three deep, above the reach of shot, passing over the bays and headlands. The flocks all go in one direction,—east. Sometimes a few will be seen going in the other direction; but I have seen such turn before lost to vision, and come back again, as if conscious they were wrong. They frequently fly close to the water, as if to vary their journey, their wings evidently being strong enough to allow considerable freedom of will; but they rise from the surface of the water to a gunshot distance when they go over the headlands. If they see a person in the course of their flight, they swerve widely, but often a lone one will, without perturbation, go straight over the fowler. I noticed that most of the flocks in spring appeared to be made up of males. I was told that later the females came along in large flocks. I should like to know about this, and also why so few of these birds, comparatively, are seen in autumn? They are among the birds which form the rear of the great migratory flight in late spring, as well as among the first to appear early in the spring; and "spring ducks" and "spring sheldrake" are common terms at the shore, —everybody knows them. The white on the wings of these birds is noticeable when they are not high, and the dark line on the neck of the male can easily be seen at a gunshot distance, when he is below the eye. They sometimes scale to the water from a height, holding the wings stiff and a little inclined down. They are never as tranquil on the water as the coot, and I could never discover much in their gizzards early in the season, even of those which had been actively engaged. They sometimes swim in close to the shore, immerse their heads and necks, and persistently punch and glean among the pebbles and weeds. The Sheldrake's tail seems to be more a part of the body than do the tails of other water birds, the feathers of the back appearing to descend to the very tip almost; perhaps it can be used somewhat as a rudder when under water. The male is known as a handsome bird, his pure white neck remaining in our memory after being seen once. Its ruddy breast is flecked with artistic niceness; and its sides and back are finely marked. There is also much character in his crest. The plumage of the female is also admired, with its soft red crested head, white throat, soft leaden back and white under parts. The bill of the female is shorter than that of the male.

The Sheldrake, swimming by the edge of the ice, with the cold snowy bank for a background, is as hardy a picture as New England can furnish. It is a stirring sight in spring, on a bright breezy day, to see the male, a crimson-eyed beauty, feeling fresh in spirits and in costume, going over the rocks, thinking only of the fête in the north.—WM. E. BARRY, *Kennebunk, Maine.*

THE DWARF THRUSH AGAIN.—I wish to rectify a mistake made in reference to a notice of the *Turdus nanus* being found in Waltham, given by Mr. Samuels, in the June number of the NATURALIST. By some accident, the description given by him at that time was not correct, and did not apply to the bird in question. I have, since that time, had two similar birds in my possession, both females; the first was shot May 25th, 1868, in a swampy wood; the second was shot September 21st of the same year. They all resembled *T. Swainsonii*, much more than *T. Pallasii.* The size is small, and there is a distinct bar across the wing; which, however, I do not consider anything more than a mark of immaturity, as it is to be found on the wings of all young thrushes. Taking this and other marks of immaturity into consideration, as they are exhibited by the specimens in question, I have decided them *all* to be young of *T. Swainsonii.*

In regard to the *T. Aliciæ* of Baird being found here or elsewhere, I would say that, having made a long series of careful measurements upon various members of the genus Turdus; and, having seen wide variations in size, and also in intensity of color, in different individuals of the same species, I have come to the conclusion that *T. Aliciæ* consists only of large and somewhat pale specimens of *T. Swainsonii.* I have seen specimens varying in intensity of color between the decidedly rufous sides of the head and breast of the typical *Swainsonii*, and the "faintest possible shade of yellowish red" of *T. Aliciæ*, with also wide variations in size. The largest and smallest measurement that I have made I will give. A male shot in Belmont, May 27th, 1868, in swampy woods, measures 7.76 inches in length; 12.65 in spread of wing; 4.30 wing; 4.00 tail. This bird is large enough truly to be a typical *T. Aliciæ*, but is unfortunately of a decided rufous upon the parts where it should be pale. Another bird shot in Waltham, October 9, 1867, a male, gives the following measurements: Length 6.70; spread 10.16; wing 3.40; tail 2.80 (this being in fact the very specimen described by Mr. Samuels as *T. nanus**). This bird is of a pale buff about the head and across the breast. By this it will be seen that *large* birds are sometimes *bright* in color, and *small* birds *pale.* I have also specimens that compare exactly, both in size and color, with the de-

---

*It is but just to say, however, that both Mr. Samuels and myself, at that time, thought the bird to be *T. nanus*, being deceived by the small size and its slight resemblance to *nanus*, as described by Prof. Baird. Mr. Samuels has since informed me of his doubts upon the subject.

scription of *T. Aliciæ* and *Swainsonii.* There is also very nearly as wide varieties in specimens of *T. Pallasii* which I have collected.

Without more evidence than is exhibited in the variations in size and intensity of color, in birds so variable in these particulars as I know the thrush to be, it seems to me that extreme caution should be used in deciding upon species. — C. J. MAYNARD.

HABITS OF SNIPES. — In a recent number of the NATURALIST, you ask if any of your readers have seen the snipe (*Scolopax Wilsonii*) alight in trees. I have noticed this in connection with another peculiarity, that of "drumming," as generally called late in the spring when shooting these beautiful little waders. Sometimes, at the report of a gun, a score or more would rise in a wisp, and after drumming awhile alight again. It has been at these times that I have seen them sitting on trees and old stumps, but more frequently on the common worm-fence; they perch, however, but a few moments before they are drumming again. On the northern shore of Lake Superior they have been seen, in fact are seen almost every spring, to come in countless multitudes across the lake, and immediately upon reaching land, alight on the trees in flocks, and rest for a considerable length of time; and although it has no connection with the subject, I would like to have it explained to me how it is that quite often in spring shooting, you find upon drawing your birds that in a day or two at most they would have laid an egg, and they are at least 1,500 miles from their breeding places, and have their nests to make after getting there, which would take altogether two or three days. I do not think it can be explained by saying they may breed south of the British American breeding-places; for in some seasons, like last spring, you will find three out of five in that condition.

Have any of your readers ever seen the Woodcock, *Scolopax minor*, perch on a tree or shrub? I saw one once that was unhurt, and another that was badly wounded. The first got entangled in the leaves and stems of a small bush, and perched on a small limb, and sat there four or five minutes. As I was not more than ten feet from him, I had a good opportunity to study him. The other was wounded late one evening and lost, and the next morning found perched in a bush, where he had remained all night, as proven by the signs underneath the twig on which he sat. He was unable to fly, which may account for it; but the other bird was an old bird, and had not been injured in any way. — WM. W. CASTLE, *Cleveland, Ohio.*

THE SEVENTEEN-YEAR LOCUST. — As it is stated in the NATURALIST that the eggs of the Seventeen-year Locust hatch out, and the larvæ leave the twigs to go into the ground in a few weeks from the time of deposit, I may mention that, since the twenty-eighth of July, I have kept in my study a number of twigs stung by the locust, for observation. No larvæ have yet appeared. Breaking one of the twigs a few minutes ago at the furrow of deposit, I found in it a number of the eggs, one-thirteenth of an inch long, and quite translucent under a pocket lens. The twigs have been kept under a bell-glass, open at the top. The sun has had but limited access to my study in which they are. Can this explain their non-development?—H. Hartshorne, *Haverford College*, *Phila.*, *Oct.* 17.

[We were by no means *sure* that the eggs of the Cicada hatch in about two weeks, but from the statements of observers, it seemed to us more probable at the time of writing the notes in the August number of the Naturalist, that they hatched soon after they were laid, rather than forty or fifty days after, as stated by one author. In a very interesting article in the "American Entomologist" for December, page 66, Mr. Riley states that the eggs hatch in about six weeks after being deposited.—Eds.]

Reason or Instinct.—Some years since when a great freshet had flooded the country at the summit of the Illinois and Michigan canal, a boatman observed an Opossum sitting on the top of a fence, part of which projected a foot above the surrounding waters. He took her off, and found in the sack fourteen young ones half-grown. She was so nearly famished that she made no demonstrations of hostility, but eat ravenously whatever was put before her, and soon became quite domesticated. She could easily have saved herself by swimming ashore, but evidently appreciated that it would be at the loss of her family.—J. S. Caton.

Is the Crow a Bird of Prey?—A communication, in the Naturalist for November, from Mr. Nauman, relates the pouncing down upon a chicken (*a la hawk*) and the carrying it off by a crow; and the enquiry is made whether this is a common practice with this bird. I suppose it is not very common, but in the month of May or June of this year, I saw a crow dash down upon a brood of young chickens, about sixty yards from my house, and carry one of them off, and in a second attempt a few days afterward, the quasi bird of prey failed to secure its prize. A member of my family witnessed a third instance, on which occasion the prey was carried off.

The fowls in the early part of the season appeared to look for no harm from those birds, but later they came to understand the danger, and uniformly fled to the shelter of the buildings, with cries of alarm upon the approach of crows, in the same way as it is their habit to do from hawks. —John H. Bartholf, M. D., *Camp Grant*, *near Richmond*, *Va.*

Albino Deer and Chipmunk.—Dr. Morgan, at Grand Rapids, Mich., has in his possession the skin and feet of the Common Deer (*Cervus Virginianus*), which was of an uniform pure white, with white eyes and black hoofs. It was observed repeatedly in that vicinity while a fawn accompanied by its dam, which was of the usual color. It was by common consent among the hunters left unmolested, with the intention to await a heavy snow, and then run it down and capture it alive. But the dogs did not coincide in this arrangement, and one day were found chasing it, and as it passed in an exhausted condition near a traveller, he caught it and cut its throat, and skinned it, so that the above trophies were all that could be obtained.

At Centerville, Mich., there is in the possession of a gentleman a common Chipmunk (*Tamias striatus*), which is of an immaculate white, with a pinkish skin and bright red eyes. There is not a spot or shade of any color except the white, and no trace of any markings whatever. This animal was brought into the house by a cat, but was rescued before any serious injury was inflicted, and it is now kept in a cage, and is a very lively as well as remarkable and interesting pet. — D. DARWIN HUGHES, *Marshall, Mich.*

THE ARGONAUT AND VITALITY OF SNAILS' EGGS. — Mr. John Ford endeavored to show the discrepancies in regard to the mode of generation and growth of the animal of *Argonauta Argo*, citing Madam Power's experiments, and concluding with the query that "if the male argonaut does not produce a shell, why were there no males hatched in Madam Power's aquarium?" Mr. W. L. Mactier exhibited a specimen of *Bulimus hœmastoma*, with the eggs and young shell, and remarked that "the specimens belong to Dr. Samuel Lewis, a member of the section." The shell and eggs were received about three years ago from Barbadoes. A few months ago, on examining his cabinet, the doctor discovered that two of the shells had hatched. It is quite curious to speculate upon the circumstances which have occurred to develop these young shells. The tenacity of life in the mollusca is now well known, but what circumstances operate to retard or favor the development in *private cabinets* we believe is not so well known. Mr. W. M. Gabb followed, speaking of the vitality of the eggs of *Limax Columbianus*, which had hatched after being confined in his cabinet at least three years. — *Proceedings of the Conchological Section of the Academy of Natural Sciences, Philadelphia.*

HONEY BEE KILLED BY SILK-WEED POLLEN. — Enclosed I hand you a honey-bee for examination. I found it lying on the ground, far from any apiary, nearly dead, ceasing to move soon after I picked it up. I found its legs bound together by a great number of those minute yellow disks with their articulate stems, that can be seen by the naked eye. I presume its death was caused by starvation alone, its entanglement causing all its efforts to be directed to freeing itself, but without avail. I presume I pulled off one-half of the disks that were upon it at first, before I thought of saving it for microscopic examination. Mr. Langstroth speaks of bees becoming entangled in the silk-weed blossoms. This may be a case. — ROBERT BICKFORD, *Seneca Falls, N. Y.*

[These bodies are, as you surmise, the packets of pollen of the silkweed, Asclepias, which adheres by a glutinous substance to wasps and bees frequenting the flowers. They are figured and fully described in the NATURALIST, Vol. I, p. 105, and the "Guide to the Study of Insects," p. 165. We have never before heard of an insect actually loosing its life from this cause, and the case is a very interesting one. — EDS.]

LUMINOUS LARVÆ. — On p. 432 of the NATURALIST, fig. 4, is figured a luminous larva, which is not referred to any genus and species. I suppose it is the larva of one of the species of *Melanactes* (Elateridæ), of which I described two or three, and figured one, in the Proceedings of the Entomological Society of Philadelphia, 1862. Compare especially what I say about the *smaller larva* which I had at that time, and which was found by Mr. Haldeman. Compare also the supplement to my article, confirming the opinion that those larvæ are luminous, and that they belong to *Melanactes*, which short supplement is to be found in the report of the stated meetings of the Society, held April 10, 1865. I thought that this notice might be interesting to you, and draw your attention to those remarkable, large luminous larvæ, which, until very recently, have entirely escaped attention.—R. OSTEN SACKEN, *New York*.

SNAILS INJURIOUS TO THE STRAWBERRY.—Herewith I send you some specimens of the *Pupilla fallax* of Say. There is nothing remarkable about the shells themselves, but I wish them to bear testimony to an interesting fact in relation to their habits, which is new to me. Writers on agriculture have studied and written much about insects that are injurious to vegetation, and we have heard of the ravages of the garden snail, *H. splendida* Drap. of Europe; also of the garden slug; but up to this time I do not know that the little mollusks now arraigned have ever been suspected as garden depredators. Mr. and Mrs. Chappellsmith of our town, both students of nature, and intelligent observers, found their strawberry plants dying rapidly, and on searching for the cause discovered these mollusks at work upon the stems and crowns of the plants, rasping off the outer coating, and sucking their juices in such a manner as to cause them to decay. Mr. C. found as many as forty upon one plant, and thinks they have killed several thousands upon the different beds. Though more abundant on the strawberry, he has found them on a variety of plants. Since attention has been called to the depredations of these minute mollusks, they have been found at work upon the strawberry plants in all the gardens examined. For a number of years I have noticed *Helix alternata* Say, in our gardens, and they are becoming more and more abundant; but we have never detected them in doing any mischief.—E. T. COX, *New Harmony*, *Ind.*

RAVAGES OF THE ALYPIA OCTOMACULATA.—That a man should desire to raise his own Isabellas is laudable and praiseworthy; and I see no reason why such desire should exist exclusively in the breasts of our bucolic friends. The inhabitants of New York, as a general thing, clearly, are of the same opinion, as is evidenced by the number of grape-vines ornamenting the doors and trellis-work of the houses of our citizens; not, of course, in the benighted regions of Wall street, but up-town; say from Sixteenth street, northward. A friend of mine residing in Thirty-fourth street, showed me, in March last, a very fine vine, which he calculated would produce him sundry pounds of very choice grapes, and in the pride of his heart he invited me to "call along" occasionally, and feast my eyes on the gradual development of the incipient bunches. Thinking that August would be a good month for my visit, I "called along," wondering in my mind whether my friend would, when the time of ripe grapes came, desire me to help myself out of his abundance; or whether he intended to surprise me with a little basket full of nice bunches, garnished with crisp green leaves. The first glance at the grape-vine banished all doubts on this point. There were an abundance of bunches on the vine, in a rather immature condition of course, but of foliage there was not a trace. Of course I expressed my surprise, though, for certain reasons, I felt none; and asked my friend why he selected a species of vine for shelter, ornament, and use, which produced no foliage. He rebuked my ignorance pretty sharply, and told me that a few weeks before the tree was covered with leaves; but, for some inexplicable reason, they had all disappeared — eaten, he guessed, by something. He guessed right. There were at least a hundred of the larva of *A. octomaculata,* the rear guard of a mighty host, wandering about the branches, apparently for the purpose of making sure that no little particle of a leaf was left undevoured. Pretty little things they were, with harmoniously blended colors of black, yellow and blue, but so terribly destructive! I had the curiosity to walk through all the streets to the east of Third avenue, as low as Twenty-Third street, and every vine was in the same predicament. If grape-leaves, instead of fig-leaves, had been in request for making aprons, and our Alypia had been in existence at the time, I doubt if in the whole of the Garden of Eden enough material would have been found to make a garment of decent size. The destruction of the crop for 1868 was complete.

This was bad. But it was not half so bad as the helpless ignorance which possessed nearly all of the unfortunate owners of vines. Scarcely one that I conversed with had the remotest idea of the cause of the disaster, and when I explained that it was the caterpillar of a beautiful little black moth, with eight whitish yellow spots on its wings, which had eaten up the foliage, my assertion was received with such a smile of incredulity, as convinced me that there is no use in trying to humbug such very sharp fellows as are the New York grape growers.

It is a little remarkable, however, that the destruction was confined to the eastern part of the city. I saw several luxuriant vines on the western side; and across the river at Hoboken, and at Hudson City, not a trace of *A. octomaculata* was discernible.

The insect, then, is very local in its habits, and it is a day-flier; and, from these facts, I infer that its ravages may be very materially checked. A little poisoned molasses, exposed in the neighborhood of the vine, would operate on the perfect insect; while a good syringing, with *soft soap* and water, would bring down the caterpillers effectually. I should like some one to try these remedies, and if their gratitude for my good advice should be so exuberant as to require an outlet, why I have no objection to receiving a few bunches of their first ripe grapes, if such a step would afford them any relief. — W. V. ANDREWS.

THE BLUE-BIRD. — I see that Dr. T. W. Brewer, in his article in the Atlantic Almanac for 1868, on the "Song-birds of North America," speaks of the Blue-bird as having made its appearance in Massachusetts once as early as the 15th of February. I have met them once on the Cape earlier than that. On the 2d of February, 1867, one of the males was twittering about the orchard where we then lived, at East Falmouth, on the shore of Vineyard Sound. A few days after I received a letter from a friend at Sandwich, stating that he saw several of them *during the last week of January*. As he did not give me the day of the month, I cannot give it, but of my date, the 2d of February, I am positive, as I took a note of it at the time. As Sandwich is fifteen miles to the north of East Falmouth, the fact of their being seen there the soonest is quite interesting. In 1866, they appeared March 4th at East Falmouth, and in 1868, not until March 11th. In 1867 we had very severe weather after their early appearance, but they remained.—W. C. FISH.

A VIVIPAROUS ECHINODERM.—Dr. Edward Grube describes an Echinoid from the Chinese seas, under the name of *Anochanus*, which actually produces young Echini, like itself, having spines, feet, and even pedicellariæ. This discovery is of remarkable interest, for it adds one more to the many diverse methods of reproduction known among Echinoderms, and completes the parallel which they present to the worms. We now know, in both groups, of animals laying eggs which produce embryos developing directly into the adult form; of others which present strange larval conditions which either become completely altered, so as to form the adults, or bud off from their interiors a small mass of living tissue which becomes the adult, leaving the larva to perish. We know, in both groups, of hermaphrodites and of diœcious species, and now we have added a viviparous form of Echinoderm, such as was previously observed in some Nemertian worms. We have yet to discover among the Echinoderms the various modifications of asexual reproduction, by pseudova, fission, or true parthenogenesis; the first two of which methods (especially fission) are so well known among worms.—*Quarterly Journal of Science, London.*

PROCEEDINGS OF SCIENTIFIC SOCIETIES.

NATIONAL INSTITUTE OF SCIENCE, LETTERS AND ART. On the evening of Dec. 29, 1868, a large number of the members of the National Institute, as well as those interested in the work, met in New York City to organize two of the Academies, *i. e.*, that of the Natural Sciences, and that of the Mathematical and Physical Sciences, into which the Institute is divided. We should mention that after several preliminary meetings, a Constitution was drafted, and on May 29th a copy of it, with the following circular, was sent to the leading scholars of the country:

"The lack of any means of easy intercourse and free communication, and consequently of united effort and mutual support, has been felt for some time past by men of letters, artists, and scientific men in the United States. They constantly find themselves reminded of this lack by their weakness as a class, because although a class